

### Abstract

Disclosed are an apparatus and a method for YC separation and three-line correlation detection with high accuracy, which allow the YC separator to generate reliable Y signals. The correlation detecting apparatus includes a sub-correlation detector. The detector checks input signals for the presence or absence of vertical correlation, and provides the signals with a judgment "high-correlation exists" or "otherwise". According to the judgment, the correlation detecting apparatus changes the process: i) when accepted the judgment "high-correlation exists", the apparatus determines the judgment to be reliable and adopts it as the output, ii) when accepted "otherwise", the apparatus increases its detecting accuracy and provides the signals with multi-leveled outputs according to the correlation levels. In this way, the main apparatus switches the detecting mode according to the result from sub-correlation detector, with the detecting accuracy greatly improved. This also allows the YC separator to flexibly cope with input signals.

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